

AMENDMENTS TO THE CLAIMS

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A method of producing particles comprising the steps of:
providing a load stock comprising:
an excipient that is a solid at 25° C. and 1 atmosphere pressure; and
optionally, a biologically active substance;
contacting the load stock with a supercritical fluid to form a melt;
expanding the melt across a pressure drop to form solid particles comprising the
load stock that are simultaneously dispersed, foamed and cooled to a
temperature below 25° C.; and
reducing the average particle size of the solid particles using a milling device.

Claim 2 (original): The method according to claim 1 further comprising the steps
of:
freezing at least a portion of the supercritical fluid during the expanding step to
form frozen fluid particles;
using the frozen fluid particles during the reducing step as a milling media for the
solid particles comprising the load stock.

Claim 3 (original): The method according to claim 1 wherein the load stock
further comprises a solvent.

Claim 4 (original): The method according to claim 3 wherein the solvent is an
organic solvent.

Claim 5 (original): The method according to claim 3 further comprising extracting the solvent from the melt using supercritical fluid as an extracting agent prior to the expanding step.

Claim 6 (original): The method according to claim 1 wherein the reducing step accomplished by a means selected from the group consisting of milling, grinding, comminuting, micronizing, pulverizing and jetting.

Claim 7 (original): The method according to claim 1 wherein subsequent to the reducing step the solid particles have an average particle size of from about 0.1 to about 500 micrometers (μm).

Claim 8 (original): The method according to claim 1 wherein the excipient is a polymer selected from the group consisting of polysaccharides, polyesters, polyethers, polyanhydrides, polyglycolides, polylactic acids, polycaprolactones, polyethylene glycols and polypeptides.

Claim 9 (original): The method according to claim 1 wherein the supercritical fluid is selected from the group consisting of carbon dioxide, water, nitrous oxide, dimethylether, straight chain or branched C_1 - C_6 -alkanes, alkenes, alcohols, ethane, propane, fluoroform, chlorotrifluoromethane, chlorodifluoromethane, propylene, ammonia and combinations thereof.

Claim 10 (original): The method according to claim 1 wherein the supercritical fluid is carbon dioxide.

Claims 11 and 12 (canceled)

Claim 13 (original): A method of producing particles comprising the steps of:
providing a load stock comprising:

an excipient that is a solid at 25° C. and 1 atmosphere pressure; and

optionally, a biologically active substance;
contacting the load stock with a supercritical fluid in a pressure vessel to form a melt;
releasing the pressure within the pressure vessel to transform the melt into a solid porous mass that is cooled to a temperature below 25° C.; and
milling the solid porous mass to obtain solid particles.

Claim 14 (original): The method according to claim 13 wherein the solid porous mass is milled before the temperature of the solid porous mass is permitted to rise to or above 25° C.

Claim 15 (original): The method according to claim 13 wherein subsequent to the reducing step the solid particles have an average particle size of from about 0.1 to about 500 micrometers (μm).

Claim 16 (original): The method according to claim 13 wherein the excipient is a polymer selected from the group consisting of polysaccharides, polyesters, polyethers, polyanhydrides, polyglycolides, polylactic acids, polycaprolactones, polyethylene glycols and polypeptides.

Claim 17 (original): The method according to claim 13 wherein the supercritical fluid is selected from the group consisting of carbon dioxide, water, nitrous oxide, dimethylether, straight chain or branched C₁-C₆-alkanes, alkenes, alcohols, ethane, propane, fluoroform, chlorotrifluoromethane, chlorodifluoromethane, propylene, ammonia and combinations thereof.

Claim 18 (original): The method according to claim 13 wherein the supercritical fluid is carbon dioxide.

Claim 19 (canceled)